

REMARKS

This is responsive to the Office Action dated December 15, 2004

The Examiner provisionally rejects claims 1, 2 and 4 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10 and 18 of co-pending Serial No. 10/306,594. A terminal disclaimer is filed herewith.

The Examiner rejects claims 1, 4 and 5 under the judicially created doctrine of obvious-type double patenting as being unpatentable over claims 1 and 3 of U.S. Patent No. 6,699,915, and claims 1-5 and 7-11 as being unpatentable over claims 1 and 5-9 of U.S. Patent No. 6,780,230. Terminal disclaimers are submitted herewith to overcome these rejections.

The Examiner maintains the rejection of claims 1-6 under 35 U.S.C. 103(a) as being unpatentable over Chao '030 in view of SU 1743887, and claims 7-9 as being unpatentable over Chao in view SU 1743887 and further in view of Nebesnak. The Examiner states that Applicant's Declaration is not persuasive because the showings are not commensurate in scope with the claims.

By the accompanying amendment, the claims have been limited to gypsum as the hydraulic binder and polyvinyl alcohol as the stabilizer. Claims 2-4 and 9 are cancelled.

The claims are now believed to be commensurate in scope with the showing of record in that they recite the binder and stabilizer actually tested. It is noted that the Declaration demonstrated that the density achieved by spray applying the resulting foam produced in accordance with the instant was

unexpectedly much less than that produced by spray applying the foam produced in accordance with Chao '030. Those skilled in the art readily appreciate that the density of the resulting foams is primarily a function of the type and amount of binder. Accordingly, the results of record demonstrate to the skilled artisan that it is the method of the present invention, not the amounts of components, that results in the surprising and unexpected results.

In addition, it is noted that the Declaration of record objectively demonstrates that the pre-foaming step in the Chao et al. reference would render the process commercially useless, regardless of the particular identity or amounts of binder and stabilizer.

The rejection of record states that it would have been obvious to have selected the claimed method of producing the foam because Chao teaches that any method known in the art may be used, and SU teaches that its method produces a high quality foam. However, the method of SU requires that two separate nozzles respectively introduce compressed air and foaming solution into a chamber having vortex-forming elements and a screen to produce the foam. Even were one skilled in the art motivated to use the SU method in Chao, the present invention as claimed would not be arrived at. Specifically claim 1 expressly requires that the formed slurry be conveyed to a length of hose, and that a sufficient amount of gas be introduced into the slurry in the length of hose at a flow rate and pressure sufficient to cause the slurry to foam. No vortex-forming elements are required to form the foam; the slurry is foamed within the length of hose itself. This is nowhere disclosed or suggested by the combination of

references, and leads to the unexpected significant reduction in density as demonstrated by the Declaration of record.

Reconsideration and allowance are respectfully requested in view of the foregoing.

Respectfully submitted,


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